

Amended
16. (Amended) The resin molded article according to claim 2, wherein said solid continuous filaments and/or short filaments have a diameter of 0.7 to 1.0 mm, and said hollow continuous filaments have a diameter of 1.5 mm to 2.0 mm.

3
62. (New) The resin molded article according to claim 1, wherein a take off speed for taking off the extruded continuous filaments is changed to thereby form high density portions having an increased bulk density which each extend in a direction of width of said three-dimensional structure and are ranged at predetermined space intervals and the direction of length of the three-dimensional structure.

REMARKS

Applicant has rewritten claims 1, 3-16 in order to overcome the rejection under 35 U.S.C. 112, second paragraph.

In rewriting claims 1, 3-16 and drafting new claim 62, Applicant has eliminated the references to a spring structure. The claims now call for "A resin cushion article..." The claims also call for "said three-dimensional structure is increased in bulk density across its width at predetermined intervals in a direction of its length." Accordingly, it is Applicants contention that the claims are in proper form for allowance.

In addition, claim 1 and various dependent claims have been amended by replacing the abbreviations VAC, EVA, and SBS with the full names of the compositions, namely vinyl acetate resin, ethylene vinyl acetate copolymer and styrene butadiene styrene. It is Applicants contention that this Amendment

places the claims in proper form for allowance and that claims 1-32, 34-62 should be allowed.

Claims 13 and 16 have also been amended to overcome any indefiniteness by elimination of the use of a broad range and a narrow range in the same claim. Therefore, claims 13-16 should be in proper form for allowance.

Claims 1, 2, 13-16, 27, 28, 52 and 53 were rejected as being anticipated by Martin et al., (U.S. Patent Number 5,972,463). Also, claims 3-6, 29-32 and 54-56 were rejected under 35 U.S.C. 102(b) or in the alternative 35 U.S.C. 103(a) as obvious over Martin et al.

It is respectfully submitted that claims 1, 2, 3-6, 13-16, 27-32 and 52-56 are clearly and patentably distinguished over the Martin et al., reference. To be more specific, Martin et al., discloses a low bulk density over its entire area (see column 6, lines 58-64). It is true that Martin et al., teaches that the density or void volume, with thickness and loftiness of the web... can be varied by selecting the desired polymers and combinations thereof... The configuration or geometry and dimensions of the extrusions and the speed of the various roles. However, Martin teaches a uniform low density mat and does not disclose or suggest a cushion article wherein the three-dimensional structure is increased in bulk density across its width at predetermined intervals in a direction of its length and wherein the article has a uniform thickness. In essence, there is no suggestion in Martin to form a cushion article having a three-dimensional structure and areas of different bulk densities across the width and along the length of the cushion article.

Accordingly, it is Applicants contention that amended claims 1-6, 13-16, 27-32, 52-56 should be allowed.

Further, Martin et al., discloses a completely different article for a different purpose. For example, Martin et al., teach a mat which can be stood or walked upon by people over a long time and of such low density that dirt and/or water readily falls or penetrates therethrough. Under such circumstances, there is no reason to provide areas of higher bulk density across the width of the mat or along its length. Further, it would appear that doing so could cause a person to loose their balance and fall. Therefore, it is Applicants contention that Martin et al., does not disclose or suggest Applicants novel concept as called for in the amended claims and in the new claim 62.

Claim 17-26, 34-48 and 57-61 were also rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al.

It is respectfully submitted that amended claims 17-26, 34-48, and 57-61 are clearly and patentably distinguished over Martin et al., for all of the reasons set forth above.

Further, claims 7-12 and 49-51 were rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al., in view of Insley et al., (U.S. Patent Number 5,451,437).

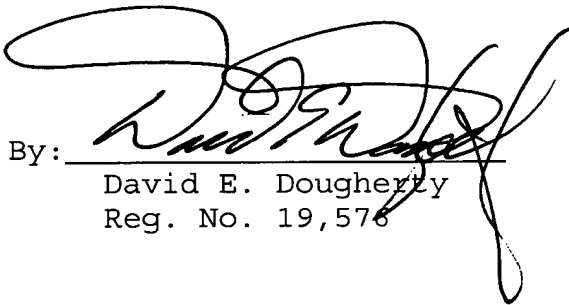
It is Applicant's contention that Insley et al., does not taken alone or in view of Martin et al., disclose or suggest a three-dimensional structure which is increased in bulk density across its width at predetermined intervals along its length. Accordingly, amended claims 7-12 and 49-51 should be allowed.

Claims 1-32 and 34-61 were also rejected under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 1-14 of U.S. Patent Number

6,470,810 ('810) in view of Martin et al. It is Applicant's contention that the enclosed Terminal Disclaimer overcomes the above rejection under the judicially created doctrine of obvious-type double patenting. Accordingly, amended claims 1-32, 34-61 and new claim 62 should be allowed.

Since all the claims are in proper form and clearly and patentably distinguished over the cited art, prompt favorable action is requested.

Respectfully submitted,

By: 
David E. Dougherty
Reg. No. 19,578

April 1, 2003
Date

Dennison, Schultz & Dougherty
612 Crystal Square 4
1745 Jefferson Davis Highway
Arlington, VA 22202
Tel: 703-412-1155 - Ext. 17
Fax: 703-412-1161

MARKED-UP VERSION TO SHOW CHANGES MADE

IN THE CLAIMS:

Please rewrite claims 1, and 3-16 as follows:

1. (Amended) A resin [molded] cushion article having a spring structure, comprising a three-dimensional structure with voids [at] and a predetermined bulk density, said three-dimensional structure being formed by contacting, entwining, and gathering adjacent ones of random loops or curls of solid and/or hollow continuous filaments and/or short filaments made from a mixture of a polyolefin resin and [VAC, EVA or SBS,] vinyl acetate resin, ethylene vinyl acetate copolymer or styrene butadiene styrene, wherein said three-dimensional structure is increased in bulk density across its [in a direction of] width [thereof,] at predetermined [appropriate space] intervals in a direction of its length [thereof] and wherein said article has a uniform thickness.

3. (Amended) The resin molded article according to claim 1, a mixture ratio of said polyolefin resin to said [VAC] vinyl acetate resin or said [EVA] ethylene vinyl acetate copolymer is 70 to 97 wt% to 3 to 30 wt%.

4. (Amended) The resin molded article according to claim 2, a mixture ratio of said polyolefin resin to said [VAC] vinyl acetate resin or said [EVA] ethylene vinyl acetate copolymer is 70 to 97 wt% to 3 to 30 wt%.

5. (Amended) The resin molded article according to claim 1, a mixture ratio of said polyolefin resin to said [VAC] vinyl acetate resin or said [EVA] ethylene vinyl acetate copolymer is 80 to 90 wt% to 10 to 20 wt%.

6. (Amended) The resin molded article according to claim 2, a mixture ratio of said polyolefin resin to said [VAC] vinyl

acetate resin or said [EVA] ethylene vinyl acetate copolymer is 80 to 90 wt% to 10 to 20 wt%.

7. (Amended) The resin molded article according to claim 1, wherein a mixture ratio of said polyolefin resin to said [SBS] styrene butadiene styrene is 50 to 97 wt% to 3 to 50 wt%.

8. (Amended) The resin molded article according to claim 2, wherein a mixture ratio of said polyolefin resin to said [SBS] styrene butadiene styrene is 50 to 97 wt% to 3 to 50 wt%.

9. (Amended) The resin molded article according to claim 3, wherein a mixture ratio of said polyolefin resin to said [SBS] styrene butadiene styrene is 50 to 97 wt% to 3 to 50 wt%.

10. (Amended) The resin molded article according to claim 1, wherein a mixture ratio of said polyolefin resin to said [SBS] styrene butadiene styrene is 70 to 90 wt% to 10 to 30 wt%.

11. (Amended) The resin molded article according to claim 2, wherein a mixture ratio of said polyolefin resin to said [SBS] styrene butadiene styrene is 70 to 90 wt% to 10 to 30 wt%.

12. (Amended) The resin molded article according to claim 3, wherein a mixture ratio of said polyolefin resin to said [SBS] styrene butadiene styrene is 70 to 90 wt% to 10 to 30 wt%.

13. (Amended) The resin molded article according to claim 1, wherein said solid continuous filaments and/or short filaments have a diameter of 0.3 mm to 3.0 mm, [preferably 0.7 to 1.0 mm,] and said hollow continuous filaments [and/or short filaments] have a diameter of 1.0 mm to 3.0 mm.

14. (Amended) The resin molded article according to claim 2, wherein said solid continuous filaments and/or short filaments have a diameter of 0.3 mm to 3.0 mm, [preferably 0.7 to 1.0

mm,] and said hollow continuous filaments [and/or short filaments] have a diameter of 1.0 mm to 3.0 mm.

15. (Amended) The resin molded article according to claim 1, wherein said solid continuous filaments and/or short filaments have a diameter of [0.3 mm to 3.0 mm, preferably] 0.7 to 1.0 mm, and said hollow continuous filaments [and/or short filaments] have a diameter of 1.5 mm to 2.0 mm.

16. (Amended) The resin molded article according to claim 2, wherein said solid continuous filaments and/or short filaments have a diameter of [0.3 mm to 3.0 mm, preferably] 0.7 to 1.0 mm, and said hollow continuous filaments [and/or short filaments] have a diameter of 1.5 mm to 2.0 mm.